

Dental Report Condition and Prognosis

Mrs T B

27th February 2010

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RMC/123/2010

1st January 2010

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OCCUPATION:

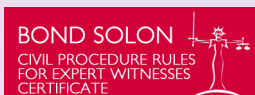
ADDRESS:

PREPARED AT THE REQUEST OF:

SOLICITOR'S REFERENCE:

DATE OF PREPARATION OF REPORT:

REPORT PREPARED BY:



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1 INTRODUCTION

1.1 The writer

My name is Dr Ben David Cohen. My specialist field is Endodontics. I have been in Specialist Referral Endodontic Practice for over twenty years, am a Registered Specialist in Endodontics with The General Dental Council. I am a certificated Expert Witness, and have obtained Part 1 of the Certificate of Medical reporting.

Full details of my qualifications and experience entitling me to give expert opinion evidence are in Appendix 1.

1.2 Summary of the case

- 1.2.1 This case concerns a lady, Mrs T B, who had an accident when she slipped over a hidden hole in a pathway on 3rd June 2009.
- 1.2.2 At the time of the accident she fell forwards and damaged her chin, fractured her **mandible** and damaged three teeth, **25**, **26** and **27**.
- 1.2.3 Following the accident, Mrs B attended the Accident and Emergency unit at a local hospital and was subsequently seen by the oral and maxillofacial department at W Hospital.
- 1.2.4 Subsequently, the **mandible** was repaired surgically at W Hospital.
- 1.2.5 As a result of the accident, Mrs B now has limited opening of the jaw, residual anaesthesia of the left cheek, lateral deviation on opening, and some sensitivity of the broken teeth.
- 1.2.6 Mrs B is now concerned about her face on the left side being more swollen than as it was prior to the accident.
- 1.2.7 Accordingly Mrs B is taking action against the Local Authority.
- 1.2.8 I have been instructed to prepare a Condition and Prognosis Report with regards to the need for future treatment on her mouth and these affected teeth. I have also been asked to deal with any relevant pre-accident medical history, the injuries sustained, treatment received and the present condition.
- 1.2.9 I examined the patient on 2nd August 2010.
- 1.2.10 The purpose of this report is to set out the current dental condition of Mrs B's teeth, with particular attention to the upper

left quadrant. In addition, the purpose of the report is also to establish the prognosis for these teeth and any treatment that may be required in the future.

1.3 Summary of my conclusions

- 1.3.1 In my opinion, the **25, 26** and **27** were damaged at the time of the index accident.
- 1.3.2 The left **temporo-mandibular joint** was also fractured and has been repaired surgically, although it has left Mrs B with limited opening and some deviation on opening.
- 1.3.3 Mrs B now needs to attend her general dental practitioner to commence regular treatment.
- 1.3.4 The **25, 26** and **27** will require full **crown restorations** as a result of their fracture.
- 1.3.5 These **coronal restorations** will require regular replacement at ten to twelve-yearly intervals.
- 1.3.6 Some continuing psychological and physical disabilities have resulted from the accident and some advice has been given by Mr M in that respect.
- 1.3.7 It is possible, but unlikely, that **root canal therapy** may be required on the **25**.
- 1.3.8 Likely costings have been given for current and future treatment.

1.4 The parties involved

1.4.1	Mrs T B	The patient (the Claimant)
1.4.2	Messrs R M & Co	Solicitors for the Claimant
1.4.3	Mr B M	Consultant Maxillofacial Surgeon and Facial Plastic Surgeon and author of medico-legal report.

1.5 Dental terms and explanations

I have indicated any dental terms in **bold type**. I have defined these terms and included them in a glossary in Appendix 3.

2 THE ISSUES ADDRESSED

2.1 Substance of the instructions

I have been asked to prepare a Condition and Prognosis report as detailed in 1.2.8

2.2 Purpose of the report

The purpose of this report is to set out the current dental condition of Mrs B's teeth, with particular attention to the upper left quadrant. In addition, the purpose of the report is also to establish the prognosis for these teeth and any treatment that may be required in the future.

2.3 The issues

There appear to be three main issues that need to be addressed in this report, as follows:

- 2.3.1 What is the current dental condition of Mrs B' mouth and what treatment, in my opinion, is necessary to render it dentally fit.
- 2.3.2 What is the likely prognosis for her mouth, and what future treatment, in my opinion, will be required.
- 2.3.3 Are there any areas of continuing complaint or disability or impact on daily living as a result of the accident.

3 MY INVESTIGATION OF THE FACTS

3.1 History and Consultation

3.1.1 My investigation of the facts has been conducted both by reference to documents supplied to me by the Solicitors, and a consultation with the patient on the 2nd August 2010.

Documents that I have examined

3.1.1.1 Copy of clinical records of W Hospital.

3.1.1.2 Copy of medico-legal report by Mr B M dated 28th June 2010.

3.1.2 At the consultation appointment I established that Mrs B is a fit and healthy forty-six year old lady. She reported to me that she is allergic to Penicillin, Pethidine and Co-codamol and is currently taking a mild antidepressant, Citalopram, for anxiety following the index accident.

3.1.3 At the examination, Mrs B reported that she was a regular dental attender until the index accident but has not attended since then [approximately fourteen months].

3.1.4 Mrs B reported that she was walking her dog in the early afternoon on the date of the accident, when the weather was light and dry. She was walking along a paved path through a field in H.

3.1.5 Without seeing it, her foot became lodged in a hole in the path, which was covered in weeds. This caused her to trip over.

3.1.6 As a result of the trip she fell forwards, flat on her chin and tried to break her fall with both hands.

3.1.7 She reported that she was not aware of losing consciousness.

3.1.8 However, she did hear a “cracking noise” and felt as if her chin had been pushed up into her head.

3.1.9 She immediately was aware of pain in her left temple and cheek and was bleeding profusely from her chin. She also seemed to remember that she was possibly bleeding from her gums, although she was not so sure, as no damage appeared to have been done to her teeth.

3.1.10 She remembers that she could talk after the accident but her mouth opening was very limited according to both her and her daughter who was on the scene very quickly.

- 3.1.11 She was subsequently taken to the Accident and Emergency unit at S Hospital by her husband, where they stitched her chin and X-rayed her jaw.
- 3.1.12 As a result of the X-rays, Mrs B was referred by S Hospital A & E department to the maxillofacial department at W Hospital, as they reported that she had broken her jaw.
- 3.1.13 She immediately went to the Accident and Emergency unit at W Hospital, where she was admitted but released the next day and advised to return one week later.
- 3.1.14 On her return a week later, she was re-X-rayed and had a CT scan. This scan revealed a **condylar** fracture and dislocation of the left **mandibular** joint.
- 3.1.15 As a result of the accident, surgery was carried out another week later by a consultant, Mr T, to repair her broken jaw.
- 3.1.16 Further details of the injury have been reported in the medico-legal report by Mr B M, a consultant maxillofacial and facial plastic surgeon.
- 3.1.17 Mrs B reported that she has now been discharged by Mr T, although she does have some residual symptoms.
- 3.1.18 These symptoms include an area of anaesthesia/palsy in the area of the left cheek and left eye.
- 3.1.19 In addition she has limited opening and is unable to completely articulate her teeth in the upper right quadrant. For example, she cannot close her teeth sufficiently to tear a piece of cellotape between her teeth.
- 3.1.20 She also reported sensitivity to hot and cold in the upper left quadrant and pain in the left **temporo-mandibular joint** area when eating. As a result of this, she is tending to eat on the right side of her mouth, although she is limited in types of food that she can eat.
- 3.1.21 Mrs B also reported that she is still off sick from work due to the eye strain problem, as she tends to work on the phone and at a computer screen.
- 3.1.22 Mrs B also reported that on a social level she is extremely self-conscious about her face, as she feels the left face is swollen and different than it was prior to the index accident. She also feels that she is lopsided and has limited her social outings because of this.

3.2 Clinical Examination

3.2.1 On clinical examination I found the following teeth to be present:

$$\frac{7\ 6\ 5\ 4\ 3\ 2\ 1}{7\ 6\ 5\ 4\ 3\ 2\ 1} \ / \ \frac{1\ 2\ 3}{1\ 2\ 3} \ \frac{5\ 6\ 7\ 8}{5\ 7}$$

- 3.2.2 Oral hygiene and **periodontal** condition were both classified as fair. There was some bleeding in the lower anterior region and a degree of plaque was present throughout the mouth. Mrs B reported to me that because of the limited opening she found it extremely difficult to brush her teeth properly.
- 3.2.3 None of the teeth were mobile or tender to percussion.
- 3.2.4 It was noticed that she had limited opening of approximately 1½ fingers breadth and I would estimate this to be approximately 60-70% of the normal opening [*this would accord with the finding of Mr M*].
- 3.2.5 On palpation, the left **condyle** was tender when opening and Mrs B also reported that it was tender when she was sleeping on it.
- 3.2.6 The **25** was sensitive to cold air.
- 3.2.7 **25, 26** and **27** have large **composite restorations**, all of which had been chipped **buccally**, although it is possible that in the case of the **26** and **27** it is the **buccal** walls of the teeth that have chipped away.
- 3.2.8 A photograph of the affected area was taken at the time of the examination and is enclosed in Appendix 2.

4 DISCUSSION AND OPINION

4.1 The issues relating to the current dental condition of the anterior teeth, and what treatment, in my opinion, is necessary to render these teeth dentally fit.

- 4.1.1 It is clear from my clinical examination and reading of the correspondence that Mrs B suffered a severe trauma when she had her accident. It is clear that the jaw was severely damaged, as were three teeth, **25, 26** and **27**. There is no indication to suggest that the damage to the teeth was done at any time other than the time of the index accident.
- 4.1.2 The **mandible** has been repaired and this is subject to a separate medico-legal report by Mr B M. Therefore, under the circumstances, I shall not give any opinion regarding that aspect.
- 4.1.3 The **25, 26** and **27** were heavily restored with tooth-coloured **composite** prior to the index accident and have obviously been damaged at the time of the accident.
- 4.1.4 The **25** is sensitive to cold but I was unable to test whether it was sensitive to hot. In addition, due to the limited opening, I did not feel it was necessary to take radiographs of the teeth at this time as this would have to be done at some later stage to establish the condition of those teeth.
- 4.1.5 Mrs B reported that she has difficulty cleaning her teeth because of the limited opening and, as a result, this has caused some **periodontal** inflammation which needs attention.
- 4.1.6 Therefore, my treatment plan, in view of my clinical examination and reading of the notes, would include the following:
- Attendance at her dental practitioner and his dental hygienist to undergo dental cleaning and oral hygiene instruction. This should be somewhat specialised in view of the somewhat limited opening.
 - Investigation of the sensitivity associated with the teeth **25, 26** and **27**, to establish whether **root canal therapy** is necessary. In my opinion, on the balance of probabilities, I would think that **root canal therapy** would not be necessary on these teeth.
 - However, if the **25** is found to be hypersensitive to hot, then **root canal therapy** may be necessary to combat that.

- Following establishment of whether **root canal therapy** is or is not necessary on the **25**, then full **crown restorations** would be necessary on the **25, 26** and **27**. I would estimate the cost of each **crown** to be in the order of £750.

4.1.7 Apart from what I have listed above, I can see no other further dental treatment being required as a result of the index accident.

4.2 The issues relating to the likely prognosis for these teeth and what future treatment, in my opinion, will be required.

4.2.1 It is now well-established that **restorations** of the kind recommended above have a finite life of between ten to twelve years, and therefore require regular replacement at those intervals.

4.2.2 Therefore, given the age of the Claimant, I would estimate that the three **crowns** on **25, 26** and **27** will require replacing three times each. I would estimate the cost of each replacement to be £750 per tooth per replacement at today's prices.

4.2.3 Apart from what I have stated in the paragraph above, I can see no other treatment being required in the future as a result of the index accident.

4.3 The issues relating to any areas of continuing complaint or disability or impact on daily living as a result of the accident.

4.3.1 As I have commented earlier, Mrs B is still extremely conscious of both her appearance and the anaesthesia in the area of the left cheek. As a result of this, she is still on a mild antidepressant/anti-anxiety medication, which she is unhappy about.

4.3.2 She also feels that it is affecting her social life, in that her appearance is not what it was and she feels that it is somewhat "lopsided".

4.3.3 In addition, Mrs B is still off sick as a result of the accident and I am unable to give an opinion as to how long this will last.

4.3.4 However, I have advised Mrs B to have a dental examination and oral hygiene treatment, including how to maintain oral hygiene.

4.3.5 It is quite clear that a number of disabilities have arisen as a result of the accident, which I have referred to above. These are also well-covered in the report by Mr B M.

5 STATEMENT OF COMPLIANCE

I, Dr Ben David Cohen DECLARE THAT:

1. I understand that my duty in providing written reports and giving evidence is to help the Court, and that this duty overrides any obligation to the party by whom I am engaged or the person who has paid or is liable to pay me. I confirm that I have complied and will continue to comply with my duty.
2. I confirm that I have not entered into any arrangement where the amount or payment of my fees is in any way dependent on the outcome of the case.
3. I know of no conflict of interest of any kind, other than any which I have disclosed in my report.
4. I do not consider that any interest which I have disclosed affects my suitability as an expert witness on any issues on which I have given evidence.
5. I will advise the party by whom I am instructed if, between the date of my report and the trial, there is any change in circumstances which affect my answers to points 3 and 4 above.
6. I have shown the sources of all information I have used.
7. I have exercised reasonable care and skill in order to be accurate and complete in preparing this report.
8. I have endeavoured to include in my report those matters, of which I have knowledge or of which I have been made aware, that might adversely affect the validity of my opinion. I have clearly stated any qualifications to my opinion.
9. I have not, without forming an independent view, included or excluded anything which has been suggested to me by others, including my instructing lawyers.
10. I will notify those instructing me immediately and confirm in writing if, for any reason, my existing report requires any correction or qualification.
11. I understand that;
 1. my report will form the evidence to be given under oath or affirmation;
 2. questions may be put to me in writing for the purposes of clarifying my report and that my answers shall be treated as part of my report and covered by my statement of truth;
 3. the court may at any stage direct a discussion to take place between experts for the purpose of identifying and discussing the expert issues in the proceedings, where possible reaching an agreed opinion on those issues and identifying

what action, if any, may be taken to resolve any of the outstanding issues between the parties;

4. the court may direct that following a discussion between the experts that a statement should be prepared showing those issues which are agreed, and those issues which are not agreed, together with a summary of the reasons for disagreeing;
 5. I may be required to attend court to be cross-examined on my report by a cross-examiner assisted by an expert;
 6. I am likely to be the subject of public adverse criticism by the judge if the Court concludes that I have not taken reasonable care in trying to meet the standards set out above.
12. I have read Part 35 of the Civil Procedure Rules and the accompanying practice direction including the “Protocol for Instruction of Experts to give Evidence in Civil Claims” and I have complied with their requirements.
13. I am aware of the practice direction on pre-action conduct. I have acted in accordance with the Code of Practice for Experts.

6 STATEMENT OF TRUTH

- 6.1 I confirm that I have made clear which facts and matters in the report are within my own knowledge and which are not. Those that are within my own knowledge I confirm to be true. The opinions I have expressed represent my true and complete professional opinion on the matters to which they refer.

Signed:

Date:

My qualifications and professional experience

Qualifications

Bachelor of Dental Surgery (BDS)	1971
Licentiate in Dental Surgery of the Royal College of Surgeons (LDSRCS)	1972
Master of Science (MSc)	1984
Doctor of Philosophy (PhD)	1991
Member of the Faculty of General Dental Practitioners (United Kingdom)	1992
Registered Specialist in Endodontics (General Dental Council)	1998
Certificate of Expert Witness Accreditation (Cardiff University)	2005
Member of the Expert Witness Institute	2008
Certificate in Medical Reporting	2013

Professional Experience

General Dental Practice	1972 – 1993
Specialist Endodontic Practice	1981 – date
Honorary Research Associate, Department of Restorative Dentistry, Manchester University	1985 – 1992
Clinical Assistant in Restorative Dentistry, University Dental Hospital of Manchester	1991 – 1992
Lecturer (Part time), Department of Restorative Dentistry, Manchester University	1992 - 1995
Visiting Fellow, Singapore Ministry of Health, funded by the Health Manpower Development Plan	1994
Honorary Research Fellow, Department of Restorative Dentistry, Manchester University	1996 - date
UK Clinical Consultant, NT Co, USA	1993 - 1996
President of the British Endodontic Society	1992 - 1993
Member of the American Association of Endodontists	1977 - date
Treasurer of the North West Endodontic Study Circle	2001 – date
Certificate of Expert Witness Accreditation, Cardiff University	2005
Author, or co-author, of over 15 refereed papers	
Holder, or co-holder, of 4 international dental materials patents	

Currently

Specialist Endodontic Practice
Honorary Research Fellow, Department of Restorative Dentistry, Manchester University



Glossary of Terms

25	the upper left (UL5) second premolar tooth
26	the upper left (UL6) first molar tooth
27	the upper left (UL7) second molar tooth
abutment	supporting tooth of a bridge
anterior open bite	a space between the front teeth when the back teeth are biting together
apex/(apical)	(at) the tip of the root
apicectomy	surgical removal of the tip (apex) of the root, usually associated with a retrograde root filling
avulsed	tooth that is completely knocked out due to impact-trauma
bitewing radiograph	x-ray taken to show the biting surfaces of top and bottom teeth at the same time
buccal	the front, or outer, surface of the teeth and gums
bridge	fixed prosthesis attached to a sound tooth/teeth to replace a missing tooth/teeth
bridge retainer	a crown on a tooth used to support an artificial crown (pontic qv) replacing a missing tooth
caries	tooth decay
carious exposure	a hole into the pulp of the tooth produced by caries dissolving away tooth structure
central incisor	the front middle tooth
clinical crown	the part of the tooth which is visible in the mouth, excluding the root of the tooth which is in the bone
composite	white filling material, usually adhesive
coronal seal	the bacterial seal created around a filling or crown of a tooth.

crown	an artificial cap covering the tooth
cyst	a collection of fluid within an epithelial (skin tissue) lined sack
dentine	the bulk of the hard substance of the tooth beneath the enamel and over the pulp
denture	removable prosthesis with artificial teeth
distal	describes the back facing side of the tooth
ecchymosed	bruising to soft tissue
enamel	the visible hard white layer of the tooth
endodontics	the science of treating the root canal space in the tooth
endodontist	dental specialist who carries out root canal treatment
enucleation	surgical removal of the cyst sack and all its contents
extirpation	removal of vital pulp tissue from the root canal (often used as an emergency procedure)
gingivae	the gum surrounding the tooth
granuloma	a chronic (non cancerous) lesion which may occur around the apex of the tooth following root treatment, and which is a type of scar
implant	titanium root analogue implanted (fixed) into the jawbone to replace a missing tooth
labial mucosa	inside skin of lip
lamina dura	complete white line of bone surrounding tooth
luxation	displacement of tooth due to trauma
mandible	the lower jaw
MAF	master apical file – the final instrument used to shape / clean the root canal
marsupialisation	surgical, long term, drainage of a true cyst
mesio-insical	describes the top lateral corner of an incisor tooth
mesial	describes the front, or midline facing side of the tooth

necrosis	dead (gangrenous) tissue
occlusion	relationship of how the arch of the upper teeth meet the arch of the lower teeth when the mouth is closed
odontogenic	of tooth origin
OPG	full mouth radiograph
orthograde	the approach to the root canal through the tooth
parallax radiographs	a number of radiographs taken at different angles to give a more 3D effect
percussion tests	the gentle tapping of a tooth with a dental instrument to test for tenderness
periapical radiograph	x-ray taken to show the end of the root in bone
perforation of the root	an artificially created hole through the root of the tooth
periodontal	supporting tissues of the teeth, gums and jawbone
periodontal ligament	layer of supporting fibres surrounding the root of the tooth, and visible on radiographs
periodontal pocketing	loss of supporting tissue around the tooth, but underneath the gum
periodontist	dental specialist who carries out gum treatments
ponic	the artificial replacement tooth unit of a bridge
porcelain veneer	an artificial porcelain facing or cap constructed and adhered to a tooth
post space	a space within the root canal prepared to take a post
post retained crown	a crown fitted to the tooth, which is retained by a pin or post fitted within the root canal space
post/core	a filling material built over a post to form an artificial tooth, usually covered with a crown
premolar	small side chewing tooth, between molars and canine teeth
prosthodontist	specialist dentist who provides dentures, crowns and bridges

pulp	the centre part of the tooth containing its nerve and blood supply
pulp vitality tests	test that assess the health of a nerve in a tooth
pulpal involvement	extent of fracture involving the centre-part (pulp) of the tooth
radiograph	picture produced when an x-ray is taken
radiolucency	a shadow on a radiograph which infers a lesion is present e.g. an abscess
radiolucent	transparent to x-rays, therefore appears black on a radiograph
retrograde	the approach to the end of the root of the tooth through the gum and bone during surgery
root canal therapy	see root treatment
root treatment (filling)	the process of removing any nerve in the tooth then cleaning, disinfecting and filling the root canal space with a semi solid material
root perforation	a hole in the side of the root created inadvertently
sinus	a hole in the gum through which pus & / or tissue fluid can drain out
veneer	an artificial porcelain or composite facing or cap constructed and adhered to a tooth
vital tooth	a tooth with a live nerve